

ENGINEERING ASSOCIATE

This class specification indicates, in general terms, the type and level of work performed as well as the responsibilities of employees in this classification. The job functions described are not to be interpreted as being all-inclusive to any specific employee.

DEFINITION

Under direction, performs a variety of complex paraprofessional engineering field and office duties in support of professional engineering staff from the planning phase through the bidding process; prepares sketches, maps, and exhibits; develops cost estimates, preliminary design reports, and job plans; assists in processing and obtaining permits; provides information and assistance to contractors, developers, engineers, and the general public on OC San's engineering services and activities; performs a variety of technical tasks relative to assigned area of responsibility; and performs duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory and/or managerial staff. Exercises no direct supervision of staff.

CLASS CHARACTERISTICS

This classification is the second of two levels within the engineering technician job series. Positions perform the full range of paraprofessional engineering duties considerable discretion and independent judgment in performing assigned work and full and thorough knowledge of engineering technical support practices such as mapping, surveying, construction inspections, conducting surveys, and preparing specifications, plans, and estimates. Assignments are given with general guidelines and positions are responsible for establishing objectives, timelines, and methods to deliver work products or services. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

The following essential job functions are typical for this classification. Incumbents may not perform all of the listed job functions and/or may be required to perform additional or different job functions from those set forth below to address business needs and changing business practices.

- Performs a variety of complex paraprofessional engineering duties in support of in engineering design, capital projects, mapping projects, surveying, and site inspections of construction projects.
- Prepares sketches, concept drawings, as-built drawings, charts, exhibits, diagrams, design specifications, plans, and estimates for a variety of engineering design and construction projects including grading, ramps, curbs, asphalt, and process piping.
- Prepares cost estimates, preliminary design reports, and job plans and assists in developing scope of work for design proposals; participates in project design meetings and evaluates design proposals.
- Coordinates with local agencies and utility companies to obtain permits for the construction of plant projects.
- Assists engineering staff in interpreting plans and reviewing submittals, as-built drawings, and proposed redesign changes; ensures documents are submitted according to regulatory requirements and project plans and specifications.

- Conducts field reviews and field measurements to gather data and measurements for design and construction purposes; verifies existing installations.
- Receives internal and capital documentation; checks for accuracy; posts information to the appropriate master document.
- Receives and processes utility map request and public records act requests of OC San engineering and construction documents; compiles and submits relevant information in compliance with OC San policy; responds to questions and resolves records request issues.
- Processes documents for the street overlay projects; conducts plan review of county and local utility agencies' street construction and improvement projects; notifies engineering staff of any planned improvements that will impact OC San construction projects.
- Evaluates construction plans and specifications to determine if plans meet OC San standards required for connection permitting; calculates permit fees; approves permits and receives fee payments.
- Reviews and approves annexation applications; receives and processes utility requests and sewer transfers.
- Maintains collection system records and drawings; reviews pipeline and manhole close-circuit television (CCTV) reports; updates and tracks system records including field investigations, calculations, sketches, and drafting documents.
- Maintains and updates the Sewer Atlas system using appropriate drafting and geographic information system (GIS) software applications and databases.
- Ensures safety and health procedures and precautions are adhered to, corrects unsafe work conditions/practices, and/or reports unsafe work conditions/practices to assigned supervisory or managerial staff.
- Performs duties as assigned.

QUALIFICATIONS

Knowledge of:

- Basic civil, mechanical, electrical, or instrumentation engineering principles and practices involving the design, construction, and maintenance of engineering projects.
- Permit filing and approval procedures.
- Principles of surveying, mechanical and computer drafting, and technical design.
- Mathematical principles and calculations.
- Methods, techniques, materials, equipment, and tools used in engineering and drafting.
- Principles and procedures of record keeping and reporting.
- Applicable federal, state, and local laws, codes, and ordinances relevant to area(s) of responsibility.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Current equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Perform increasingly complex and responsible technical engineering support work with accuracy, speed, and minimal supervision.
- Draft design drawings from blueprints or engineers' drawings using drafting equipment, tools, supplies, and computer applications or by freehand.
- Prepare as-builts, technical charts, and loop diagrams.
- Compile data, maintain records and files, and participate in the preparation of clear and concise reports.
- Read and interpret maps, plans, sketches, schematics, diagrams, and blueprints.
- Make mathematical calculations and accurate engineering computations and drawings.
- Operate a motor vehicle to travel to various OC San sites, projects, and/or meetings.

- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Comply with safe work practices and procedures in the workplace.
- Provide a high level of customer service by effectively dealing with the public, vendors, contractors, and OC San staff.
- Effectively use computer systems, software applications relevant to work performed and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Employment Standards:

Any combination of education and experience that provides the required knowledge, skills, and abilities may be qualifying as determined by OC San.

1. High school diploma or G.E.D., supplemented by 60 semester units from a college or university accredited by the U.S. Department of Education with major coursework in drafting, engineering, or a related field.
2. Five (5) years of engineering related work experience to include drafting, preparing basic engineering designs, specifications, estimates, and mathematical computations.

Licenses and/or Certifications:

- Must possess a valid California Class C Driver's License.

Disaster Service Workers:

All Orange County Sanitation District employees are designated Disaster Service Workers through state law (California Government Code Section 3100-3109). Employment with the Orange County Sanitation District requires the affirmation of a loyalty oath to this effect. Employees are required to complete all related training as assigned, and to return to work as ordered in the event of an emergency.

PHYSICAL DEMANDS

- Mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and visit various OC San sites, projects, and/or meetings; primarily a sedentary office classification although standing in work areas and walking between work areas may be required; occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information; ability to lift, carry, push, and pull materials and objects up to 35 pounds.
- Mobility to work in changing site conditions; to sit, stand, and walk on level, uneven, or slippery surfaces; to reach, twist, turn, kneel, and bend, to climb and descend ladders.
- Vision to read printed materials and a computer screen.
- Vision to inspect site conditions and work in progress.
- Hearing and speech to communicate in person and over the telephone.
- Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment.
- Field work requiring frequent walking in operational areas to identify problems or hazards with exposure to hazardous materials in some site locations.

ENVIRONMENTAL ELEMENTS

- Office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances.
- Field work with exposure to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, and vibration.
- Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

OTHER REQUIREMENTS

- Probationary Period: All OC San employees, except classifications considered “at-will”, are subject to the probationary period provisions as specified in the applicable Memorandum of Understanding, policies, and/or resolutions. Employees who have not yet successfully completed their initial probationary period serve “at-will” and may be released from employment without cause or recourse to any appeal or grievance procedures.
- Pre-Employment: All employment offers are contingent upon successful completion of OC San’s pre-employment process, which includes a background investigation, a physical examination, and a drug screen.
- Work Location Assignment: Employees will be assigned to a work location based on business needs which may be located at any/all of OC San locations; this work location may be changed at any time.